For Color Photo Printers (300DPI ; dots / inch)

SF3004-EC10A

The SF3004-EC10 Series are suitable for small photo printers which can make direct print out from digital still cameras and mobile phones. ROHM's technology based on "Step-free" structure enables battery drive, and high resolution printing quality.

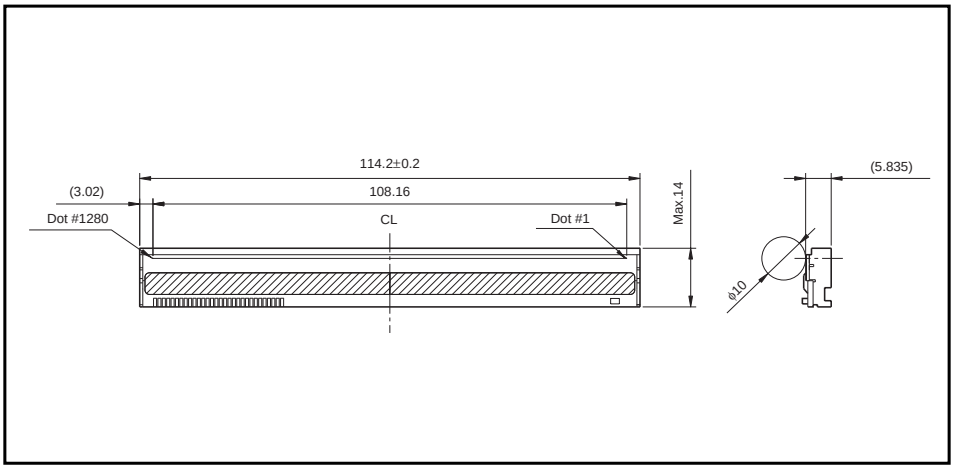
●Applications

Home printers
Mobile Photo printers
Photo kiosk terminals
"Print club" (color photo printer) terminals

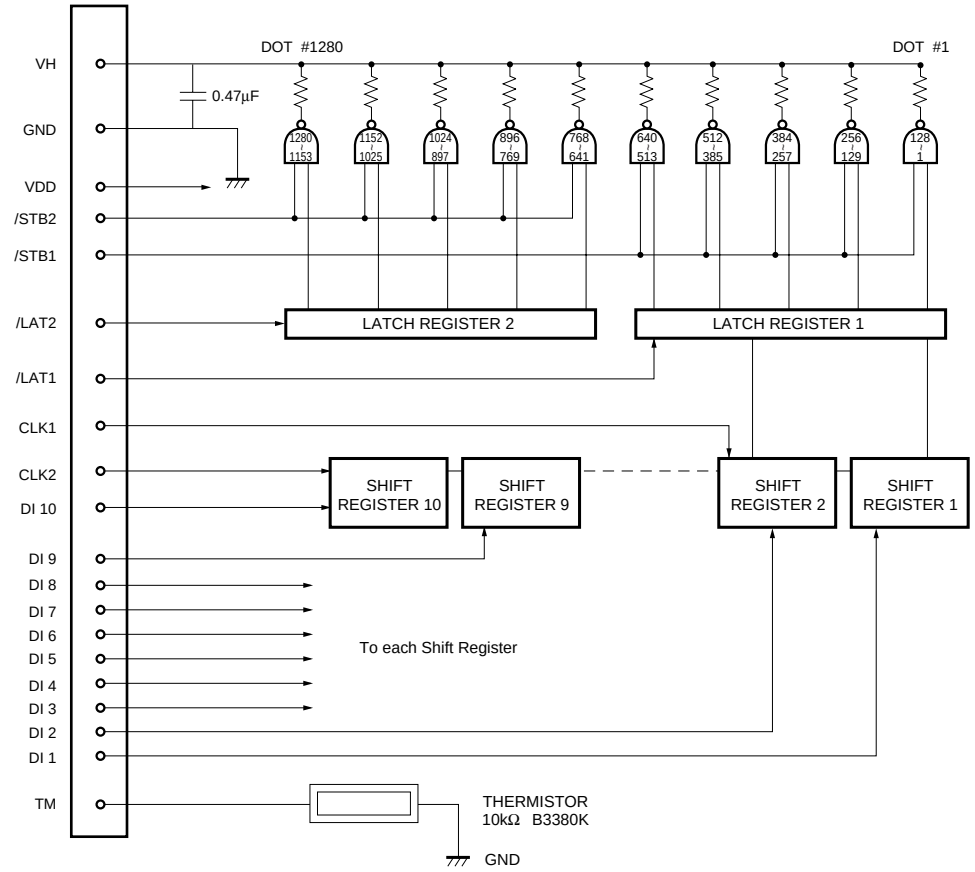
●Features

1) SF3004-EC10 is drivable with batteries, thanks to it's low energy consumption.
2) SF3004-EC10 enables full color printing by keeping the adjacent resistance variation less than ±1.5%.
3) Employing of the driver IC capable of high-speed data transfer at 3.3 circuit supply voltage makes the gradation printing control easier.
4) High dot reproducibility with step-free structure.

●External dimensions (Unit : mm)



●**Equivalent circuit**



DI No.	DOT No.	DI No.	DOT No.
10	1280 to 1153	5	640 to 513
9	1152 to 1025	4	512 to 385
8	1024 to 897	3	384 to 257
7	896 to 769	2	256 to 129
6	768 to 641	1	128 to 1

/STB No.	DOT No.
2	1280 to 641
1	640 to 1

Fig.1

●**Pin assignments**

No.	Circuit	No.	Circuit	No.	Circuit
1	GND	2	V_H	3	V_H
4	V_H	5	GND	6	CLK 2
7	GND	8	/LAT 2	9	/STB 2
10	TM	11	DI 10	12	DI 9
13	DI 8	14	DI 7	15	DI 6
16	DI 5	17	DI 4	18	DI 3
19	DI 2	20	DI 1	21	V_{DD}
22	/STB 1	23	/LAT 1	24	GND
25	CLK 1	26	GND	27	V_H
28	V_H	29	V_H	30	GND

●**Timing chart**

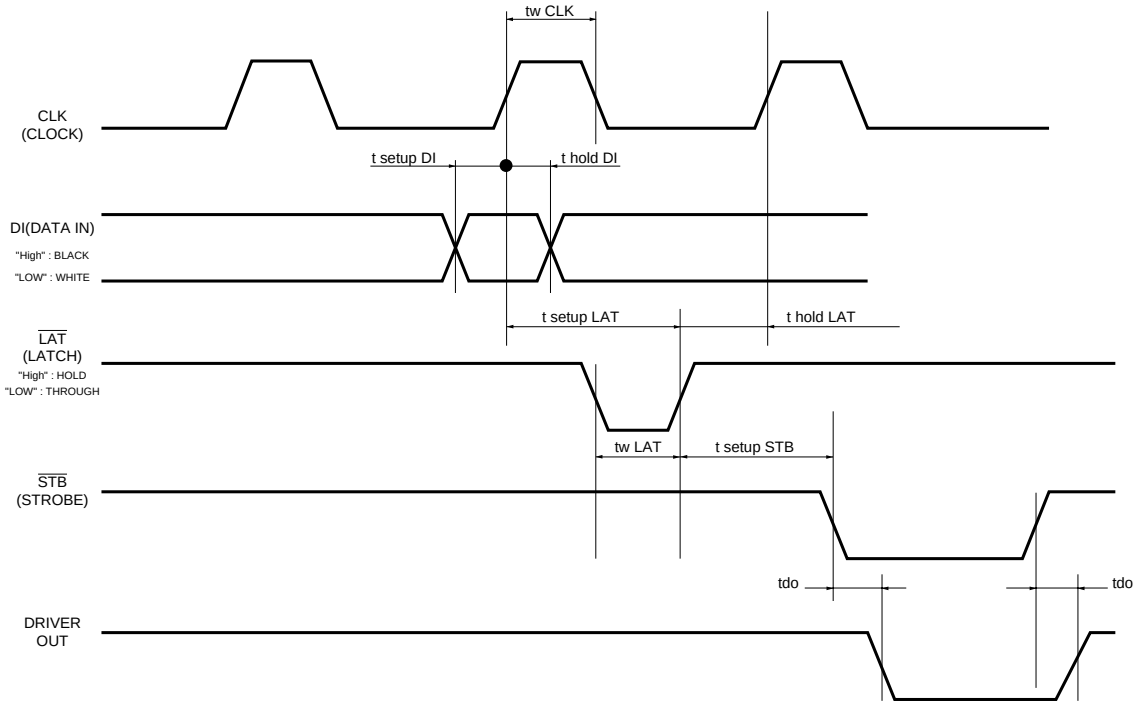


Fig.2

●**Characteristics**

Parameter	Symbol	Typical	Unit
Effective printing width	–	108.16	mm
Dot pitch	–	0.0845	mm
Total dot number	–	1280	dots
Average resistance value	Rave	2800	Ω
Applied voltage	V_H	13.3	V
Applied power	P_O	0.061	W/dot
Print cycle	SLT	4.5	ms/line
Pulse width	T_{ON}	2.25	ms
Maximum number of dots energized simultaneously	–	640	dots
Maximum clock frequency	–	16	MHz
Maximum rolls diameter	–	10	mm
Running life / pulse life	–	$2/5\times10^7$	km/pulses
Operating temperature	–	5 to 45	°C

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